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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,418	06/23/2003	Kee Yean Ng	70030295-1	9606
7590 04/13/2004 AGILENT TECHNOLOGIES, INC. Legal Department, DL429 Intellectual Property Administration P.O. Box 7599 Loveland, CO 80537-0599			EXAMINER OLIVA, CARMELO B	
			ART UNIT 2831	PAPER NUMBER

DATE MAILED: 04/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/602,418

Applicant(s)

NG ET AL.

Examiner

Carmelo Oliva

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,9 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Cohn (US 5,102,829).

Regarding claim 1, Cohn discloses a device package, comprising:

a conductive substrate 16 having a bottom side defining a footprint of the device package and having a top side with at least one mounting site;

an insulating substrate 15 with a first side on the top side of the conductive substrate, the insulating substrate having at least one aperture providing access between a second side of the insulating substrate and the at least one mounting site, the insulating substrate having one or more signal paths on the second side coupling the at least one aperture to one or more contact sites disposed about the insulating substrate; and

a series of conductive tabs 3, each of the conductive tabs coupled to a corresponding one of the one or more contact sites.

Regarding claim 9, the conductive tabs are posts 3 that penetrate the conductive substrate.

Regarding claim 13, one or more of the one or more conductive tabs are grounded to the conductive substrate (col. 4, lines 47-50).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 2-4, 10-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohn (US 5,102,829) in view of Glenn (US 5,962,810).

Regarding claim 2, Cohn does not disclose at least one optical device mounted at the at least one mounting site. However, Glenn teaches an encapsulated device package wherein the device is an optical device 14. It would have been obvious to one having ordinary skill in the art at the time the invention was made for Cohn to package

an optical device as taught by Glenn in order to protect and house the optical device from environmental effects and to provide mounting, heat dissipation, and electrical connection means to the device.

Regarding claim 3, the at least one optical device of Glenn includes at least one of an LED, photodetector and laser diode.

Regarding claim 4, Cohn comprises an encapsulant covering the at least one aperture on the second side of the insulating substrate.

Regarding claims 10-12, the conductive tabs of Cohn are posts that penetrate the conductive substrate.

Regarding claim 14, one or more of the one or more conductive tabs of Cohn are grounded to the conductive substrate (col. 4, lines 47-50).

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cohn (US 5,102,829) in view of Ogihara et al. (US 4,965,660).

Regarding claim 5, the conductive tabs of Cohn are not gull-wings disposed about the periphery of the conductive substrate. However, Ogihara et al. teaches a device package wherein the conductive pads 3 are gull-wings. It would have been obvious to one having ordinary skill in the art at the time the invention was made for the conductive tabs of Cohn to be gull-wings as taught by Ogihara et al. in order to provide leads that provide surfaces to be wire bonded to the device and solderable to a substrate surface.

7. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohn (US 5,102,829) in view of Glenn (US 5,962,810) as applied to claims 2-4 respectively above, and further in view of Ogihara et al. (US 4,965,660).

Regarding claims 6-8, the conductive tabs of the modified Cohn are not gull-wings disposed about the periphery of the conductive substrate. However, Ogihara et al. teaches a device package wherein the conductive pads 3 are gull-wings. It would have been obvious to one having ordinary skill in the art at the time the invention was made for the conductive tabs of Cohn to be gull-wings as taught by Ogihara et al. in order to provide leads that provide surfaces to be wire bonded to the device and solderable to a substrate surface.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 5,355,283; US 5,784,260; US 5,834,839; and US 6,023,098 all show packages having conductive and insulating substrates.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carmelo Oliva whose telephone number is (571)272-1982. The examiner can normally be reached flexible hours on Monday through Friday with every other Wednesday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard, can be reached at (571)272-2800 ext. 31. The fax phone

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number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

 4/5/04
DEAN A. REICHARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800